

Project Report



Slaney

CUSTOMER

As a long-established beef business, situated at the heart of the agri-food sector in Ireland, sustainability has always been a core principle for **ABP Slaney**. Based on sustainable structures, technologies and practices, **ABP Slaney** is a committed member of Origin Green, the Irish Food Board (Bord Bia) Sustainable Food Production Programme.

PROJECT

A modern compressed air system to meet sustainability objectives and improve energy efficiency.

BOGE PRODUCTS IN USE

- 1 x 30-kw SLF 40 compressor
- 1 x 30-kw S 40 compressor



Lower energy costs and a smaller carbon footprint for ABP Slaney

An environmentally friendly food producer, ABP Slaney, is exploring every avenue for reduction of its energy consumption and related CO₂ emissions. One approach, with help from BOGE distributor ILS Engineering, has been to upgrade the technology and efficiency of its compressed air system. The new equipment from BOGE Compressors not only meets sustainability demands but saves over €25,000 annually on energy costs.

ABP Slaney

From its base in County Wexford, ABP Slaney supplies top-class, grass-fed beef to retailers and food service companies across Ireland, Britain, Europe and worldwide. Committed to sourcing from farms with high environmental and welfare standards, ABP Slaney has been awarded a prestigious Gold Membership of the Irish Food Board's Origin Green sustainability programme. Lowering carbon output by using less energy is a key aim.

This large plant, employing over 450 staff, relies heavily on air-powered tools and machines for its complete range of meat processing operations and its pneumatically equipped packaging lines.

ILS Engineering, based in County Wicklow, is a specialist supplier of industrial equipment and maintenance. It has been working with Slaney for three years, initially servicing the company's old compressors and associated machinery.

Air challenges

"Although the two existing compressors were still reliable, and provided enough back-up to avoid loss of production, we could see that they lacked efficiency," says Mark O'Brien, CEO of ILS. "They were technologically outdated, and they worked at a fixed speed which meant there was no adjustment to match output efficiently with demand. In addition, heat generated by the compressors was simply going to waste."

PROJECT INFORMATION

> THE CHALLENGE

Outdated technology meant that the energy costs were rising. The old system worked at a fixed speed which meant there was no adjustment to match output efficiently with demand. In addition, heat generated by the compressors was simply going to waste.

> THE BOGE SOLUTION

In place of the two old compressors, ILS installed one BOGE SLF 40 and one BOGE S 40. Each has a power rating of 30 kW (40 hp). The SLF model offers frequency-driven variable speed, while the other's speed is fixed.

> THE RESULT

A smaller carbon footprint, lower heating bills, thanks to heat recovery and an annual energy saving of €25,285 a year.



He continues, “We applied data loggers to the system to monitor its energy use. We were then able to estimate how much could be saved by replacing the existing 55 kW and 30 kW units with more modern compressors and adding heat exchangers. The customer agreed to our proposal.”

The solution

In place of the two old compressors, ILS installed one BOGE SLF 40 and one BOGE S 40. Each has a power rating of 30 kW (40 hp). The SLF model offers frequency-driven variable speed, while the other's speed is fixed.

Mark O'Brien explains: “When air demand is within the capacity of the variable speed compressor, and is fluctuating, that machine meets the changing needs. Each fluctuation in demand is met by automatic adjustment of the compressor's speed.

“If air demand goes higher than that machine's capacity, the fixed speed model takes over as the main compressor. The variable speed compressor, meanwhile, adjusts to any fluctuations in demand. Whenever air demand is constant, without fluctuation, the fixed speed compressor can meet the plant's needs on its own.”

Additional energy savings are made through the new set-up's remote switching, which shuts the compressors down when no air is being used. Without it, compressed air would continue to pass through the plant and escape wastefully at various outlets.

Importantly, each of the BOGE compressors has an integrated heat exchanger. “This harvests heat energy and transfers it to the plant's hot water system, for use in washdown and other processes. As a result, less fuel is needed by the plant's oil burner.”

- By matching air supply more closely with demand, weekly savings of 648 kWh (equivalent to €162.00) have been achieved by the compressors.
- Remote switching of the compressors has saved a further 670 kWh (€167.50) per week.
- Weekly savings on fuel oil consumption, through energy captured by heat exchangers, work out at 627 kWh (€156.75).
- Combining these average figures gives a total saving 1,945 kWh or €486.25 in a week, which equates to €25,285 in a year.

Further savings, not yet measured, will be made on servicing expense, as the new compressors have lower maintenance requirements.





Results in brief

- Lower electricity bills, thanks to variable speed and remote switching of compressors
- Lower heating bills, thanks to heat recovery
- Annual energy saving of €25,285
- Smaller carbon footprint, reinforcing the customer's high reputation for sustainability
- Less maintenance required
- Quick upgrade process

Customer satisfaction

John Quinn, ABP Slaney's Maintenance manager, comments: "We were very happy with the straightforward installation process, which took less than two days – including setting up control connections between the compressors to synchronise their operation. We were even happier to find that the new solution actually delivered the savings ILS had predicted." I would highly recommend ILS Engineering along with BOGE Compressors as they designed and delivered the reliable and efficient package we required.

Mark O'Brien adds: "ABP Slaney can expect many years of good service from the BOGE compressors, which initially come with a five-year warranty, and we will be ready to help in any other way. Meanwhile, we are delighted to see that Slaney has retained its Origin Green Gold Membership status, and we are glad to have helped in meeting its sustainability objectives."